	L #	Hits	Search Text	DBs	Time Stamp
1	L1	120	phosphate near5 (cotransporter or co-transporter or transporter)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/09/11 14:24
2	L2	103	l1 and (human or sapien)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/09/11 14:25
3	L4	29	l2 and phosphate.ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/09/11 14:25
4	L5	23	(bandman.in. or lal.in.) and (phosphate near5 sodium)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/09/11 14:36

09/786,498 SEARCH RESULTS/HISTORY

(FILE 'HOME' ENTERED AT 14:28:10 ON 11 SEP 2002)

FILE 'MEDLINE, AGRICOLA, CAPLUS, BIOSIS, EMBASE, WPIDS' ENTERED AT
14:28:24 ON 11 SEP 2002

L1 932 S SODIUM (A) PHOSPHATE (A) (TRANSPORTER OR CO-TRANSPORTER OR CO
L2 16 S L1 (A) HUMAN
L3 12 DUP REM L2 (4 DUPLICATES REMOVED)

FILE 'CAPLUS' ENTERED AT 14:32:23 ON 11 SEP 2002
E LAL P/AU 25
L4 4 S (E3 OR E15 OR E16 OR E17 OR E18) AND (PHOSPHATE)
E BANDMAN O/AU 25
L5 1 S (E4) AND (PHOSPHATE AND SODIUM)

=>

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:605005 CAPLUS
DOCUMENT NUMBER: 129:198911
TITLE: Cloning and cDNA sequence of a human **sodium**-dependent **phosphate** cotransporter
INVENTOR(S): Lal, Preeti; **Bandman, Olga**
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9837198	A1	19980827	WO 1998-US3745	19980224
W: AT, AU, BR, CA, CH, CN, DE, DK, ES, FI, GB, IL, JP, KR, MX, NO, NZ, RU, SE, SG, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5985604	A	19991116	US 1997-805118	19970224
AU 9864400	A1	19980909	AU 1998-64400	19980224
EP 977845	A1	20000209	EP 1998-910064	19980224
R: BE, DE, ES, FR, GB, IT, NL				
JP 2001514495	T2	20010911	JP 1998-537023	19980224
US 6326207	B1	20011204	US 1999-391958	19990908
US 2002090693	A1	20020711	US 2001-991212	20011116

PRIORITY APPLN. INFO.: US 1997-805118 A2 19970224
WO 1998-US3745 W 19980224
US 1999-391958 A3 19990908

AB The present invention provides a human **sodium**-dependent **phosphate** cotransporter (NAPTR) and polynucleotides which identify and encode NAPTR. Nucleic acids encoding human NAPTR were first identified in Incyte clone 754412 through a computer-generated search for amino acid sequence alignments; a consensus sequence was derived from the extension of this clone. NAPTR is 402 amino acids in length and has chem. and structural homol. with human renal **sodium-phosphate** transport protein and rat brain-specific **sodium**-dependent inorg. **phosphate** cotransporter. The invention also provides genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding NAPTR and a method for producing NAPTR. The invention also provides for agonists, antibodies, or antagonists specifically for NAPTR. Addnl., the invention provides for the use of antisense mols. to polynucleotides encoding NAPTR for the treatment of diseases assocd. with the expression of NAPTR. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding NAPTR. The invention also provides a method for treating disorders assocd. with decreased **phosphate** levels by administering NAPTR and a method for treating disorders assocd. with increased **phosphate** levels by administering antagonists to NAPTR.

09/786,498 SEARCH RESULTS/HISTORY

A FROM 4 ANSWERS - CONTINUE? Y/(N):y

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:15363 CAPLUS
DOCUMENT NUMBER: 132:74549
TITLE: Human signal peptide-containing proteins and their cDNA sequences
INVENTOR(S): **Lal, Preeti**; Tang, Y. Tom; Gorgone, Gina A.; Corley, Neil C.; Guegler, Karl J.; Baughn, Mariah R.; Akerblom, Ingrid E.; Au-Young, Janice; Yue, Henry; Patterson, Chandra; Reddy, Roopa; Hillman, Jennifer L.; Bandman, Olga
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 327 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000610	A2	20000106	WO 1999-US14484	19990625
WO 2000000610	A3	20000629		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9948349	A1	20000117	AU 1999-48349	19990625
EP 1090118	A2	20010411	EP 1999-931942	19990625
R: BE, DE, ES, FR, GB, IT, NL				
JP 2002519030	T2	20020702	JP 2000-557363	19990625

PRIORITY APPLN. INFO.:
US 1998-90762P P 19980626
US 1998-94983P P 19980731
US 1998-102686P P 19981001
US 1998-112129P P 19981211
US 1998-90762 P 19980626
US 1998-94983 P 19980731
US 1998-102686 P 19981001
US 1998-112129 P 19981211
WO 1999-US14484 W 19990625

AB The invention provides 134 human signal peptide-contg. proteins (HSPP) and polynucleotides which identify and encode HSPP. Tissue-specific expression patterns are also provided. Biol. activity of HSPP-68 (potassium current using voltage clamp anal.) and HSPP-92 (protein phosphatase measured by the hydrolysis of p-nitrophenyl **phosphate**) was demonstrated, and the HSPP proteins in general are expected to have useful activities. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders assocd. with expression of HSPP.

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:784245 CAPLUS
DOCUMENT NUMBER: 132:20491
TITLE: Cloning, expression and therapeutic applications of human carbamoyl **phosphate** synthase homolog
INVENTOR(S): Hillman, Jennifer L.; Corley, Neil C.; **Lal, Preeti**
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9963067	A1	19991209	WO 1999-US11161	19990520
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,				

NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2329146	AA	19991209	CA 1999-2329146	19990520
AU 9940899	A1	19991220	AU 1999-40899	19990520
EP 1082414	A1	20010314	EP 1999-924387	19990520
R: BE, DE, ES, FR, GB, IT, NL				
JP 2002517190	T2	20020618	JP 2000-552263	19990520

PRIORITY APPLN. INFO.: US 1998-88550 A 19980601
WO 1999-US11161 W 19990520

AB The invention provides a human carbamoyl **phosphate** synthase homolog (CPSH) and polynucleotides which identify and encode CPSH. Nucleic acids encoding CPSH were first identified in Incyte clone 2045605 from the THP1T7T01 cDNA library. CPSH is 469 amino acids in length. Northern anal. shows the expression of this sequence in various libraries. Naturally occurring CPSH was purified using specific antibodies. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating or preventing disorders assocd. with expression of CPSH.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:764204 CAPLUS
DOCUMENT NUMBER: 132:9661
TITLE: Protein and cDNA sequences encoding seven human hydrolase homologs, and thereof in therapeutic and diagnostic applications
INVENTOR(S): Bandman, Olga; Hillman, Jennifer L.; Yue, Henry; **Lal, Preeti**; Corley, Neil C.; Guegler, Karl J.; Patterson, Chandra; Baughn, Mariah R.
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961626	A2	19991202	WO 1999-US12021	19990528
WO 9961626	A3	20000406		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2329076	AA	19991202	CA 1999-2329076	19990528
AU 9943222	A1	19991213	AU 1999-43222	19990528
EP 1080203	A2	20010307	EP 1999-953359	19990528
R: BE, DE, ES, FR, GB, IT, NL				

PRIORITY APPLN. INFO.: US 1998-87236P P 19980529
WO 1999-US12021 W 19990528

AB The invention provides protein and cDNA sequences of seven human hydrolase homologs (HHH). Said proteins were first identified from human tissue and blood cDNA libraries using a computer search for amino acid sequence alignments; consensus sequences were derived from overlapping and/or extended nucleic acid sequences. HHH-1 shares homol. with an N-terminal asparagine amidohydrolase, HHH-2 shares homol. with Vanin-1, HHH-5 shares homol. with a glucohydrolase, HHH-6 shares homol. with an N-acetylglucosamine 6-P deacetylase, and HHH-3, HHH-4, and HHH-7 share homol. with glycosyl hydrolases. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides for the use of the disclosed hydrolase homologs in the diagnosis, treatment, and prevention of reproductive, carbohydrate metab., and cell proliferation disorders.

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:605005 CAPLUS
DOCUMENT NUMBER: 129:198911
TITLE: Cloning and cDNA sequence of a human sodium-dependent

phosphate cotransporter
INVENTOR(S): **Lal, Preeti**; Bandman, Olga
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9837198	A1	19980827	WO 1998-US3745	19980224
W: AT, AU, BR, CA, CH, CN, DE, DK, ES, FI, GB, IL, JP, KR, MX, NO, NZ, RU, SE, SG, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5985604	A	19991116	US 1997-805118	19970224
AU 9864400	A1	19980909	AU 1998-64400	19980224
EP 977845	A1	20000209	EP 1998-910064	19980224
R: BE, DE, ES, FR, GB, IT, NL				
JP 2001514495	T2	20010911	JP 1998-537023	19980224
US 6326207	B1	20011204	US 1999-391958	19990908
US 2002090693	A1	20020711	US 2001-991212	20011116

PRIORITY APPLN. INFO.: US 1997-805118 A2 19970224
WO 1998-US3745 W 19980224
US 1999-391958 A3 19990908

AB The present invention provides a human sodium-dependent **phosphate** cotransporter (NAPTR) and polynucleotides which identify and encode NAPTR. Nucleic acids encoding human NAPTR were first identified in Incyte clone 754412 through a computer-generated search for amino acid sequence alignments; a consensus sequence was derived from the extension of this clone. NAPTR is 402 amino acids in length and has chem. and structural homol. with human renal sodium-**phosphate** transport protein and rat brain-specific sodium-dependent inorg. **phosphate** cotransporter. The invention also provides genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding NAPTR and a method for producing NAPTR. The invention also provides for agonists, antibodies, or antagonists specifically for NAPTR. Addnl., the invention provides for the use of antisense mols. to polynucleotides encoding NAPTR for the treatment of diseases assocd. with the expression of NAPTR. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding NAPTR. The invention also provides a method for treating disorders assocd. with decreased **phosphate** levels by administering NAPTR and a method for treating disorders assocd. with increased **phosphate** levels by administering antagonists to NAPTR.

09/786,498 SEARCH RESULTS/HISTORY

=> d 1- ibib abs
YOU HAVE REQUESTED DATA FROM 12 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:308885 BIOSIS
DOCUMENT NUMBER: PREV200200308885
TITLE: Human intestinal Npt2B.
AUTHOR(S): Cannon, Paul David (1); Sankuratri, Suryanarayana
CORPORATE SOURCE: (1) San Carlos, CA USA
ASSIGNEE: Roche Bioscience, Palo Alto, CA, USA
PATENT INFORMATION: US 6380374 April 30, 2002
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 30, 2002) Vol. 1257, No. 5, pp. No Pagination. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
AB A novel **human sodium phosphate cotransporter** expressed on the apical surface of intestinal epithelial cells (huNpt2B) and polypeptides related thereto, as well as nucleic acid compositions encoding the same, are provided. The subject polypeptides and nucleic acid compositions find use in a variety of applications, including research, diagnostic, and therapeutic agent screening applications. Also provided are methods of inhibiting Npt2B activity in a host and methods of treating disease conditions associated with Npt2B activity.

L3 ANSWER 2 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:354244 BIOSIS
DOCUMENT NUMBER: PREV200200354244
TITLE: Regulation of alveolar type II cell sodium-phosphate cotransporter type IIb (NaPi-IIb) gene expression by side-stream cigarette smoke (SSCS) exposure.
AUTHOR(S): Collins, James F. (1); Drees, Jason B. (1); Witten, Mark Lee (1); Xu, Hua (1); Ghishan, Fayez K. (1)
CORPORATE SOURCE: (1) Pediatrics, University of Arizona, 1501 N. Campbell Ave., Tucson, AZ, 85724 USA
SOURCE: FASEB Journal, (March 20, 2002) Vol. 16, No. 4, pp. A461. http://www.fasebj.org/. print.
Meeting Info.: Annual Meeting of the Professional Research Scientists on Experimental Biology New Orleans, Louisiana, USA April 20-24, 2002
ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English
AB We sought to test the hypothesis that SSCS exposure effects expression of the lung NaPi-IIb cotransporter. This protein is exclusively expressed on the apical membrane of alveolar type II (AII) cells and is likely involved in uptake of Pi from degraded surfactant phospholipids. Methods: 8-week-old rats were exposed daily for one hour for 14 days to SSCS or air. On day 15, animals were sacrificed and lungs were harvested. Northern blots were performed with mouse NaPi-IIb-specific cDNA probes under high stringency conditions. Polyclonal antibodies were raised against an N-terminal NaPi-IIb peptide. Human AII-like cells (A549) were cultured and assayed for NaPi-IIb gene expression by semi-quantitative RT-PCR. Results: Northern blots showed 2-fold decreased NaPi-IIb mRNA expression (n=3). Antibodies specifically recognized a protein on AII cell apical membranes in lung sections. Immunoblots showed recognition of a specific, single 75 kDa band that was decreased in intensity with SSCS exposure (n=2). Furthermore, nicotine treatment of A549 cells led to decreased NaPi-IIb mRNA expression. Conclusion: SSCS exposure leads to decreased NaPi-IIb gene expression and this is most likely mediated by decreased gene transcription or mRNA stability.

L3 ANSWER 3 OF 12 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2001158801 MEDLINE
DOCUMENT NUMBER: 21113730 PubMed ID: 11171583
TITLE: Regulation of the **human sodium-phosphate cotransporter** NaP(i)-IIb gene promoter by epidermal growth factor.
AUTHOR: Xu H; Collins J F; Bai L; Kiela P R; Ghishan F K
CORPORATE SOURCE: Departments of Pediatrics and Physiology, Steele Memorial Children's Research Center, University of Arizona Health Sciences Center, Tucson, Arizona 85724, USA.
CONTRACT NUMBER: R01-DK-33209-17 (NIDDK)
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY. CELL PHYSIOLOGY, (2001 Mar)

280 (3) C628-36.
Journal code: 100901225. ISSN: 0363-6143.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200103
ENTRY DATE: Entered STN: 20010404
Last Updated on STN: 20010404
Entered Medline: 20010322

AB The intestinal sodium-phosphate cotransporter (NaP(i)-IIb) plays a major role in intestinal P(i) absorption. Epidermal growth factor (EGF) is involved in the regulation of P(i) homeostasis. However, the role of EGF in intestinal NaP(i)-IIb regulation is not clear. The current studies showed that EGF decreased NaP(i)-IIb mRNA abundance by 40-50% in both rat intestine and Caco-2 cells. To understand the mechanism of this regulation, we cloned the human NaP(i)-IIb gene and promoter region and studied the effect of EGF on NaP(i)-IIb gene transcription. The human NaP(i)-IIb gene has 12 exons and 11 introns. Two transcription initiation sites were identified by primer extension. Additionally, 2.8 kb of the 5'-flanking region of the gene was characterized as a functional promoter in human intestinal (Caco-2) and human lung (A549) cells. Additional studies showed that EGF inhibited promoter activity by 40-50% in Caco-2 cells and that actinomycin D treatment abolished this inhibition. EGF had no effect on promoter activity in lung (A549) cells. We conclude that the human NaP(i)-IIb gene promoter is functional in Caco-2 and A549 cells and that the gene is responsive to EGF by a transcriptionally mediated mechanism in intestinal cells.

L3 ANSWER 4 OF 12 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-579513 [55] WPIDS
DOC. NO. NON-CPI: N2000-428874
DOC. NO. CPI: C2000-172583
TITLE: **Human sodium-phosphate cotransporter** Npt2B, useful e.g. for identifying agents for treating hyper- and hypo-phosphatemia, and related nucleic acid.
DERWENT CLASS: B01 D16 P14 S03
INVENTOR(S): CANNON, P D; SANKURATI, S; SANKURATRI, S
PATENT ASSIGNEE(S): (HOFF) HOFFMANN LA ROCHE & CO AG F
COUNTRY COUNT: 8
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
AU 2000014979	A	20000831	(200055)*		42
GB 2348645	A	20001011	(200055)		
CA 2296178	A1	20000809	(200056)	EN	
FR 2791348	A1	20000929	(200057)		
DE 10004815	A1	20001012	(200059)		
JP 2000245488	A	20000912	(200059)		19
SE 2000000375	A	20000810	(200140)		
AU 741170	B	20011122	(200204)		
US 6380374	B1	20020430	(200235)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
AU 2000014979	A		AU 2000-14979	20000209
GB 2348645	A		GB 2000-2665	20000204
CA 2296178	A1		CA 2000-2296178	20000207
FR 2791348	A1		FR 2000-1438	20000204
DE 10004815	A1		DE 2000-10004815	20000204
JP 2000245488	A		JP 2000-32413	20000209
SE 2000000375	A		SE 2000-375	20000207
AU 741170	B		AU 2000-14979	20000209
US 6380374	B1	Provisional	US 1999-119321P	19990209
			US 2000-499964	20000208

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 741170	B	Previous Publ.	AU 200014979

PRIORITY APPLN. INFO: US 1999-119321P 19990209; US 2000-499964 20000208

AN 2000-579513 [55] WPIDS
AB AU 200014979 A UPAB: 20001102
NOVELTY - Npt2B polypeptide (I) having a 688 amino acid sequence (1), reproduced in the specification, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) Npt2B polypeptide (I') at least 90% identical with (I);
(2) Npt2B polypeptide (I'') comprising sequence (1);
(3) fragments (II) of (I), (I') and (I'');
(4) nucleic acids (III) encoding (I), (I'), (I'') or their fragments;
(5) fragments of (III);
(6) isolated nucleic acid or its mimetics, (III'), that hybridize to (III) or its complement under stringent conditions;
(7) expression cassette (EC) containing (III), its fragments or (III');
(8) cells that contain EC, as part of an extrachromosomal element or integrated into the genome, and their progeny;
(9) production of Npt2B by culturing cells of (h);
(10) monoclonal antibody (MAb) that binds specifically to Npt2B;
(11) (1) modulating Npt2B in a host by administering a specific modulatory agent (A);
(12) screening for identifying (A); and
(13) a non-human transgenic animal that expresses Npt2B.
ACTIVITY - Anti-hyperphosphatemia; anti-hypophosphatemia.
MECHANISM OF ACTION - Npt2B is a human type II sodium-phosphate cotransporter, responsible for absorption and uptake of inorganic phosphate in the intestine.
No data given.
USE - (I) is used to identify specific agonists and antagonists (A) of Npt2B and to raise antibodies (Ab), particularly those that inhibit Npt2B activity. (A) are potentially useful for treating disease of inorganic phosphate metabolism, especially hyper- and hypo-phosphatemia, e.g. osteomalacia, rickets, hyperparathyroidism and renal disease. Nucleic acids (III) that encode (I), and their fragments, are used to identify Npt2B homologs, as source of new promoters, to identify Npt2B regulatory factors, as probes and primers, for determining expression patterns, to produce models (cellular, animal or in vitro) for Npt2B function, for recombinant production of Npt2B, for gene therapy, diagnostically for detecting polymorphisms and mutations and as antisense or ribozyme therapeutics. Measuring the level of Npt2B, or expression of its gene, can be used diagnostically. Ab are useful as therapeutic antagonists and as immunoassay reagents.
Dwg.0/0

L3 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
ACCESSION NUMBER: 1999:315159 CAPLUS
DOCUMENT NUMBER: 131:154237
TITLE: Isolation and chromosomal mapping of a novel human gene showing homology to Na+/PO4 cotransporter
AUTHOR(S): Shibui, Akiko; Tsunoda, Takeshi; Seki, Naohiko; Suzuki, Yutaka; Sugane, Kazuo; Sugano, Sumio
CORPORATE SOURCE: Department of Virology, the Institute of Medical Science, University of Tokyo, Tokyo, 108-8639, Japan
SOURCE: Journal of Human Genetics (1999), 44(3), 190-192
CODEN: JHGEFR; ISSN: 1434-5161
PUBLISHER: Springer-Verlag Tokyo
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We isolated a cDNA clone which shows a significant similarity with the renal Na+/phosphate cotransporter (NPT) from a human intestine mucosa cDNA library. The cDNA is 2626 bases long, with one open reading frame encoding a protein of 497 amino acids. The deduced amino acids sequence shows an overall homol. of 48% with the human renal NPT1 protein. This gene is expressed in intestine, colon, liver, and pancreas. Thus, this gene may code for intestinal type NPT or closely related proteins. The chromosomal location of the gene was detd. on the chromosome 6p21.3-p22 region by polymerase chain reaction-based anal. with both a human/rodent mono-chromosomal hybrid cell panel and a radiation hybrid mapping panel.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:608630 CAPLUS
DOCUMENT NUMBER: 129:211721
TITLE: Sodium-phosphate cotransporter in lithium therapy for the treatment of mental illness
INVENTOR(S): Gunn, Robert B.; Timmer, Richard T.
PATENT ASSIGNEE(S): Emory University, USA

SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9838203	A1	19980903	WO 1998-US2875	19980211
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9863263	A1	19980918	AU 1998-63263	19980211

PRIORITY APPLN. INFO.: US 1997-39462P P 19970227
WO 1998-US2875 W 19980211

AB The sodium-phosphate cotransporter existing on virtually every human cell is identified as the same protein as the lithium-sodium countertransporter, and is suitable for diagnostic assays for mental illnesses susceptible to lithium therapy, including manic depression.

L3 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:152949 CAPLUS
DOCUMENT NUMBER: 128:304559
TITLE: Characterization of the 5' flanking region of the human NPT-1 Na+/phosphate cotransporter gene
AUTHOR(S): Taketani, Yutaka; Miyamoto, Ken-ichi; Chikamori, Mika; Tanaka, Keiko; Yamamoto, Hironori; Tatsumi, Sawako; Morita, Kyoko; Takeda, Eiji
CORPORATE SOURCE: Kuramoto-cho 3, School of Medicine, Department of Clinical Nutrition, University of Tokushima, Tokushima, 770, Japan
SOURCE: Biochimica et Biophysica Acta (1998), 1396(3), 267-272
CODEN: BBACAQ; ISSN: 0006-3002
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To elucidate the expression and regulation of the human type I Na+/phosphate transporter gene (NPT-1), the 5' flanking region of the NPT-1 gene was cloned, and its nucleotide sequence and function were detd. A genomic clone that contained approx. 14.0 kb of the 5'-flanking region of the NPT-1 gene was isolated. A single transcription start site was located 104 base pairs (bp) upstream of the 3' end of exon 1. In addn. to the sequence of the 5'-flanking region contained a sequence weakly homologous to a TATA box at position -41 to -36 and many transcriptional regulatory elements. Transient expression revealed that a 45-bp region of proximal to exon 1, which contained TATA-like sequence, was sufficient for promoting luciferase expression in OK-cells derived from opossum kidney proximal tubule.

L3 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:434661 CAPLUS
DOCUMENT NUMBER: 127:157409
TITLE: Gene structure and functional analysis of the human Na+/phosphate co-transporter
AUTHOR(S): Taketani, Yutaka; Miyamoto, Ken-ichi; Tanaka, Keiko; Katai, Kanako; Chikamori, Mika; Tatsumi, Sawako; Segawa, Hiroko; Yamamoto, Hironori; Morita, Kyoko; Takeda, Eiji
CORPORATE SOURCE: Department Clinical Nutrition, School Medicine, University Tokushima, Tokushima, 770, Japan
SOURCE: Biochemical Journal (1997), 324(3), 927-934
CODEN: BIJOAK; ISSN: 0264-6021
PUBLISHER: Portland Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three .lambda. phage clones encompassing the Na+/phosphate co-transporter (NaPi-3) gene and its 5' flanking region were isolated from a human genomic DNA library. The gene comprises 13 exons and 12 introns and spans approx. 14 kb. All exon-intron junctions conform to the GT/AG rule. The major transcription-initiation site was detd. by primer-extension anal. and is an adenosine residue 57 bp upstream of the 3' end of the first exon. There is a typical TATA box 28 bp upstream of the major transcription-initiation site and various cis-acting elements, including a cAMP-responsive element, AP-1, AP-2 and SP-1 sites in the 5' flanking region. This region also contains three direct-repeat-like sequences that resemble the consensus binding sequence for members of the steroid-thyroid hormone receptor superfamily, including vitamin D. Deletion anal. suggests that the region from nt -2409 to nt -1259 in the 5' flanking

region may be involved in kidney-specific gene expression. Vitamin D responsiveness of the NaPi-3 promoter was also detected in COS-7 cells co-transfected with a human vitamin D receptor expression vector. The presence of the three vitamin D receptor-responsive elements in the NaPi-3 promoter may be important in mediating the enhanced expression of the gene by 1,25-dihydroxyvitamin D3.

L3 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:751857 CAPLUS
DOCUMENT NUMBER: 126:15538
TITLE: Cloning and expression of human brain sodium-dependent inorganic phosphate cotransporter cDNA and screening for pharmaceuticals interacting with the transporter
INVENTOR(S): Ni, Binhui; Paul, Steven M.
PATENT ASSIGNEE(S): Lilly, Eli, and Co., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9634288	A1	19961031	WO 1996-US5792	19960425
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
US 5686266	A	19971111	US 1995-430033	19950427
AU 9655761	A1	19961118	AU 1996-55761	19960425
US 5618918	A	19970408	US 1996-647481	19960514
US 5618677	A	19970408	US 1996-647484	19960514

PRIORITY APPLN. INFO.: US 1995-430033 19950427
WO 1996-US5792 19960425

AB This invention describes a novel human brain Na+-dependent inorg. phosphate cotransporter, designated the hBNPI protein. This invention also encompasses nucleic acids encoding this protein, or a fragment thereof, as well as methods employing this protein and the nucleic acid compds. Recombinant cells producing hBNPI can be used to screen for compds. which might be used to treat or prevent conditions assocd. with inappropriate stimulation of hBNPI. The human brain sodium-dependent inorg. phosphate cotransporter cDNA was cloned, sequenced, and expressed in COS-1 cells. Northern blotting indicated a single species of mRNA encoding the transporter and strong expression in brain tissue. Southern blotting indicated the gene was present in the genome in one copy and that no polymorphism was present.

L3 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:421401 CAPLUS
DOCUMENT NUMBER: 125:134173
TITLE: Structure of murine and human renal type II Na+-phosphate cotransporter genes (Npt2 and NPT2)
AUTHOR(S): Hartmann, C. M.; Hewson, A. S.; Kos, C. H.; Hilfiker, H.; Soumounou, Y.; Murer, H.; Tenenhouse, H. S.
CORPORATE SOURCE: Department Physiology, University Zurich, Zurich, CH-8057, Switz.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1996), 93(14), 7409-7414
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Na+-phosphate (Pi) cotransport across the renal brush border membrane is the rate limiting step in the overall resorption of filtered Pi. Murine and human renal-specific cDNAs (NaPi-7 and NaPi-3, resp.) related to this cotransporter activity (type II Na+-Pi cotransporter) have been cloned. The authors now report the cloning and characterization of the corresponding mouse (Npt2) and human (NPT2) genes. The genes were cloned by screening mouse genomic and human chromosome 5-specific libraries, resp. Both genes are approx. 16 kb and are comprised of 13 exons and 12 introns, the junctions of which conform to donor and acceptor site consensus sequences. Putative CAAT and TATA boxes are located, resp., at positions -147 and -40 of the Npt2 gene and -143 and -51 of the NPT2 gene, relative to nucleotide 1 of the corresponding cDNAs. The translation initiation site is within exon 2 of both genes. The first 220 bp of the

mouse and human promoter exhibit 72% identity. Two transcription start sites (at positions -9 and -10 with respect to nucleotide 1 of NaPi-7 cDNA) and two polyadenylation signals were identified in the Npt2 gene by primer extension, 5' and 3' rapid amplification of cDNA ends (RACE). A 484-bp 5' flanking region of the Npt2 gene, comprising the CAAT box, TATA box, and exon 1, was cloned upstream of a luciferase reporter gene; this construct significantly stimulated luciferase gene expression, relative to controls, when transiently transfected into OK cells, a renal cell line expressing type II Na+-Pi cotransporter activity. The present data provide a basis for detailed anal. of cis and trans elements involved in the regulation of Npt2/NPT2 gene transcription and facilitate screening for mutations in the NPT2 gene in patients with autosomally inherited disorders of renal Pi resorption.

L3 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:623272 CAPLUS
DOCUMENT NUMBER: 121:223272
TITLE: Localization of a renal sodium-phosphate cotransporter gene to human chromosome 5q35
AUTHOR(S): Kos, Claudine H.; Tihy, Frederique; Econs, Michael J.; Murer, Heini; Lemieux, Nicole; Tenenhouse, Harriet S.
CORPORATE SOURCE: Dep. Biol., McGill Univ., Montreal, QC, H3H 1P3, Can.
SOURCE: Genomics (1994), 19(1), 176-7
CODEN: GNMCEP; ISSN: 0888-7543
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Southern anal. of digests of genomic DNA from XY, XX, and XXX human fibroblast cell lines did not reveal a gene dose effect, thereby providing evidence for autosomal localization of the sodium-phosphate cotransporter gene. High-resoln. fluorescence in situ hybridization localized the sodium-phosphate cotransporter gene to human chromosome 5q35.

L3 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:622461 CAPLUS
DOCUMENT NUMBER: 119:222461
TITLE: Expression cloning of human and rat renal cortex sodium/inorganic phosphate cotransport
AUTHOR(S): Magagnin, Simona; Werner, Andreas; Markovich, Daniel; Sorribas, Victor; Stange, Gerti; Biber, Juerg; Murer, Heini
CORPORATE SOURCE: Inst. Physiol., Univ. Zurich, Zurich, CH-8057, Switz.
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (1993), 90(13), 5979-83
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two cDNA clones, NaPi-2 and NaPi-3 were isolated by screening rat kidney cortex and human kidney cortex cDNA libraries, resp., for expression of sodium-dependent phosphate transport in Xenopus laevis oocytes. Substrate specificity and a detailed kinetic anal. (Na, Pi, H+ concns.) suggested that expressed uptake activities relate to proximal tubular brush border membrane Na/Pi cotransport. NaPi-2 cDNA contains 2464 bp encoding a protein of 637 aa; NaPi-3 cDNA contains 2573 bp encoding a protein of 639 aa. NaPi-2- and NaPi-3-deduced protein sequences show high homol. to each other but are different from the protein sequence deduced from the previously cloned NaPi-1 cDNA (from rabbit proximal tubules). Hydropathy profile predictions suggest at least eight membrane-spanning regions in NaPi-2/3-related proteins. In vitro translation results in proteins of the expected size and suggests glycosylation. Northern blot anal. shows corresponding mRNA species (.apprxeq.2.7 kb) in kidney cortex of various species but no hybridization with RNAs isolated from a variety of other tissues (including intestinal segments); a hybridization signal (.apprxeq.4.8 kb) was obsd. only in the lung (human). It is concluded that two closely related proteins have been structurally identified which are most likely involved in human and rat renal brush border Na/Pi cotransport.